



For the management executive who wants the competitive advantages of more speed, effectiveness, and versatility in project planning and control.

PLANALOG
INCORPORATED

FREE SEMINARS ON PLANNING—PERT, PERT/COST, CPM

Held in New York, Philadelphia, Chicago, Los Angeles



PLANALOG Demonstration: Seminar instructor, right, shows how a PLANALOG* symbolizes activities and events in a "dynamic display" of a project plan. A PLANALOG functions as an analog computer, shows effects of changes, predicts outcome of project.

*Patented in the U.S.A. and in foreign countries.

PLANALOG Systems are a major breakthrough in project planning and control. PLANALOG enables you to use your own management skills more fully, and with computer accuracy:

- to speed the planning process and increase its precision
- to increase your ability to plan and control projects of an extremely broad and complex nature
- to enable you to reach logically correct decisions quickly
- to help you make accurate predictions of project progress instantly, when conditions of the project are changed

You are invited to familiarize yourself with PLANALOG Systems at a special seminar, outlined here. To enroll, telephone or fill out and mail the registration form provided.

Your organization is cordially invited to be represented at a **GENERAL MANAGEMENT SEMINAR ON PLANNING AND CONTROL**

10:00 A.M. to 12:30 P.M.

INTRODUCTION—You are briefed on the history of Planning and Control. Bar charts (Gantt charts), Critical Path Method (CPM), Program Evaluation Review Technique (PERT), PERT/COST and PLANALOG Systems are explained and compared.

FIRST DEMONSTRATION—Easy to understand and do approach to CPM and PERT on the PLANALOG.

SECOND DEMONSTRATION—Breakthrough techniques on the PLANALOG:

- (a) Resource Allocation (optimum use of limited skills and facilities).
- (b) Inter-Project Resourcing (allocating limited resources between many projects, with varying completion dates and priorities, in the optimum manner).
- (c) Time/Cost/Risks Trade-offs.
- (d) Time-Compression of projects at minimum increase in cost.
- (e) Development of Budgets and Cash-Flows.
- (f) Simulation of alternate strategies.
- (g) Aid to Decision-Making.
- (h) Immediate Updating and Re-scheduling.

FIRST DISCUSSION—PLANALOG Systems' compatibility with and enhancement of existing techniques for Planning and Control.

12:30 P.M. to 2:00 P.M. LUNCHEON

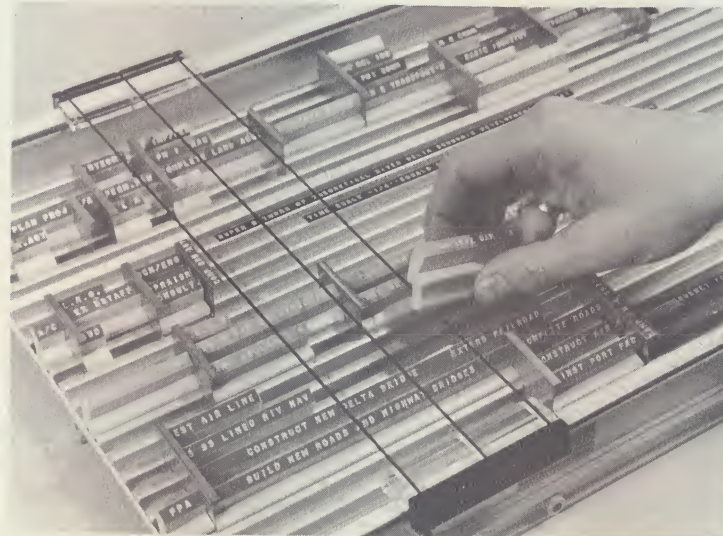
2:00 P.M. to 4:30 P.M.

CASE HISTORIES—Showing how companies are using PLANALOG Systems for new product development and introduction, building modification and construction, periodic maintenance, study programs, research and development, marketing, advertising campaigns, repair and conversion of ships, bid preparation, engineering, training and education.

SECOND DISCUSSION—The extent PLANALOG Systems are applicable to your specific situation. Can the effectiveness of your operation be enhanced 10%? 20%? 30%? 40%?

PLANALOG is:

NEW—Now for the first time a planning and control technique enabling *each manager* to have positive grip on his projects. A unique, inexpensive, analog instrument gives these managers "fingertip" control of networking techniques variously known as PERT, PERT/COST and CPM. Patents have been granted by the United States and foreign countries.



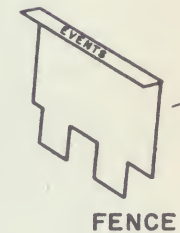
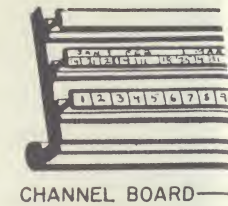
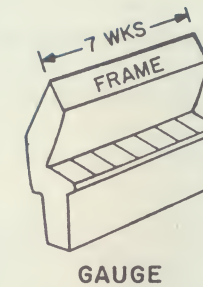
This dynamic projection of information is the basic tool of a Planalog System. Activities and events symbolized in a Planalog *function* with the same relationships as the actual activities and events. In effect, the projection is a simple analog computer.

FIELD TESTED—Increased effectiveness and substantial cost savings have resulted. Applications include:

- **Product Design Engineering**
Control Data Corp., Bridge Division
- **Bid Preparation and Proposals**
Todd Shipyards Corp.
- **Public Utility Construction**
Long Island Lighting Company
- **Aerospace Program Management—Project Definition**
Design & Hardware Contracts
General Electric Co.
- **Education and Training**
The Wharton School of the University of Pennsylvania
- **Certified Public Accountants**
Lybrand, Ross Brothers and Montgomery
- **Advertising Agencies**
J. Walter Thompson
- **Ship Repairs, Modification and Conversions**
Bethlehem Steel Shipyards
- **Capital Equipment—Purchase and Installation**
Sun Ship Building and Dry Dock Company
- **New Product Development and Introduction**
Thomas J. Lipton Inc.
- **Building Construction Management from Owner's Point of View**
University of Pennsylvania
- **Research and Development**
Columbia Broadcasting System Laboratories
- **International Marketing**
The Mennen Company
- **Oil Refinery Maintenance**
Socony Mobil Oil Co.
- **Plant Maintenance**
Allied Chemical Corp.
- **Studies**
Penn Jersey Transportation Study
- **Drug Research and Development**
Hahnemann Hospital, Philadelphia, Pa.
- **Plant Expansion without Production Down Time**
Howe Sound Company
- **Facilities Redevelopment**
Port of New York Authority
- **Systems Cutover (Installations)**
Bell Telephone Company of Pennsylvania
- **Acceptance Testing**
Todd Shipyards Corp.
- **Plant Engineering Project**
Miller Brewing Co.
- **Atomic Energy Applications**
Brookhaven National Laboratories
- **Planning New Ventures**
Union Carbide Corp.

The following top-view of part of a PLANALOG shows the basic simplicity of the approach:

1. Activities are expressed by "Gauges". Their duration is indicated by their length—exactly as in a bar chart. Their left edges correspond to start events and their right edges to completion events. Planning is started by simply placing the "gauges" in the channel board. *The need for drawing networks on paper is eliminated.* The other surfaces of the gauge are used for manpower or machine loadings and cost data. A calendar readout and time-scale are written on tapes pressed to the bottom rails. (In the illustration, each division represents one week.)



2. Interrelationships of activities are expressed by inserting "Fences", which when viewed from the top appear as vertical lines. Activities to the right of a fence can only be started after all activities to its left are completed.

3. Automatically, the following answers are computed and seen at a glance:
Hence the need for hand or digital computer calculations is eliminated.

In addition the PLANALOG:

CAN BE USED TO DO ADVANCED MANAGEMENT TECHNIQUES:

RESOURCE ALLOCATION—matching your manpower/machine availability curves to your requirement curves.

COST-TIME-RISK trade-offs.

SIMULATION and EVALUATION OF ALTERNATIVES.

IMPACT ANALYSIS—of weather, strikes, late deliveries or performance by subcontractors.

WORK-SHIFT analysis and overtime vs. work-shift trade-off analysis.

BUDGET PREPARATION and CASH-REQUIREMENTS analysis.

PLANNING IN DEPTH—"Bottom Up/Top Down" through "Summary Board and Detail Explosion" technique.

INTERPROGRAM Resourcing and establishment of Priorities.

ADDS NEW DIMENSIONS

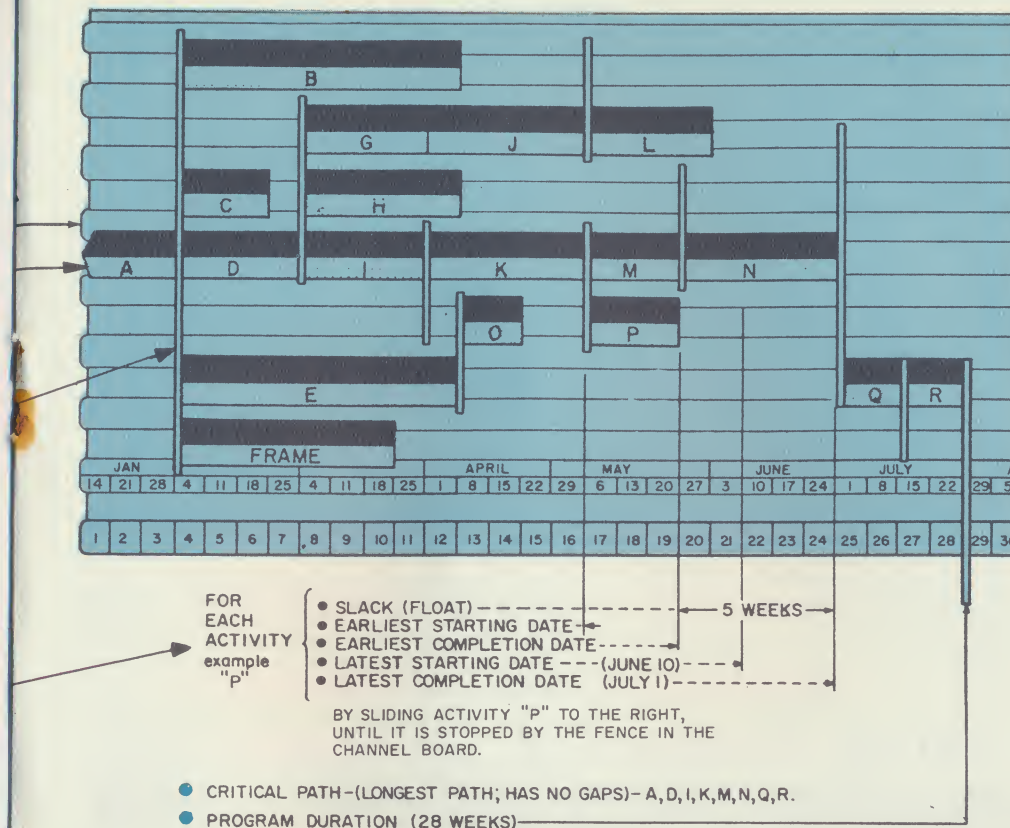
DYNAMIC:

3-DIMENSIONAL

COLOR-CODED

A UNIFYING

COMPATIBLE



ON TO PLANNING BY BEING:

Easy to modify, up-date, show impact of changes by the move of your hand.

AL: Has different surfaces to correlate—TIME, COST as it varies with time, MANPOWER and MACHINE LOADING as they vary with time, SKILLS or RESPONSIBILITIES—as planned, or as they change with respect to plan.

Manpower skills, facilities, departments and other resources are color-coded for ease of analysis and communication.

FORCE: Combines network planning with a TIME-SCALE; makes "event" orientation of PERT and "activity" orientation of CPM two facets of the same thing (PLANALOG gauge); provides a standard format (6" x 18" channel board); and merges restraints, nodes and events into one concept (the fence). Dummy lines are eliminated.

The Planalog merges into and makes more powerful your existing planning and scheduling systems. Bar charting skills are easily transferred into PERT and CPM skills. The ability to empirically analyze a Planalog network gives additional flexibility and insight to those who use digital computers for networking.

SEMINARS EVERY MONDAY. General Management Seminars are held every Monday by *all* our offices. *There is no charge or obligation.* To register, telephone or fill in and mail the registration form to the office most convenient to you. Your reservation will be confirmed, giving complete details.

Information regarding charges for seminars on special subjects, and in-plant or office seminars is available upon request. Kindly state your specific area of interest.



Executive Offices

800 Suburban Station Building
1617 John F. Kennedy Boulevard
Philadelphia, Penna. 19103
Telephone: 215-LO 3-4939

7569 North Rogers Avenue
Chicago, Illinois 60626
Telephone: 312-764-2964

920 Gateway West Building
1801 Avenue of the Stars
Century City
Los Angeles, California 90067
Telephone: 213-879-1630

New York City: to register for seminars which are held each Monday in New York City, contact our Philadelphia Office.

REGISTRATION FORM

Please register the following for the Seminar to be held on

(fill in date)

Name _____
PLEASE PRINT

Position _____

Name _____

Position _____

Name _____

Position _____

Company _____

Address _____

City _____ State _____ Zip Code _____